

Ebase Xi

Agile Service Oriented Architecture



Ebase Xi is an agile service oriented architecture that accelerates and simplifies the delivery of business applications. The Xi platform combines process management, integration services and application development to deliver the industry's most comprehensive and productive SOA.

THE SOA CHALLENGE

Service oriented architectures (SOA) hold out the promise for a brave new world of application development, deployment and reuse, and offer a new economic reality to a domain that has long suffered from cost overrun and excessive expenditure. Ease of use and lower training costs, lower cost of deployment, faster time to market, improved business requirement matching, and better multi-channel deployment are among the myriad reasons why SOA has been eagerly awaited by business and IT managers alike.

And yet, somewhere between the theory and the practice, things go wrong.

Large organizations often assume that an effective SOA must be a heavyweight, enterprise-wide initiative. For many however, such an approach is premature and in the absence of a corresponding enterprise-wide business case, such initiatives run into major business and technical roadblocks.

Other organizations go the other way and take a lightweight approach to SOA that just concentrates on delivering Web Services. Without the proper focus on architecture such approaches run the risk of yielding JBOWS - "just a bunch of Web Services", which may be redundant, incompatible, and worse, unmanaged and insecure.

EBASE XI

The key to successful SOA is to find the *right-weight* approach for an organization, and to find software tools that are powerful enough and flexible enough to meet the return on investment demanded by the business.

Ebase Xi delivers a comprehensive data exchange infrastructure that scales to meet any SOA initiative, and delivers, in a single technology platform, data integration, business process automation and application development.

Xi is an agile SOA platform that focuses on delivering return on investment through ease of use, productivity and power.

Xi delivers unprecedented levels of speed for delivering SOA applications. Developers use an agile approach to building services and are supported by powerful tools that simplify technical complexity and allow projects to focus on delivering business functionality.

THE MISSION

Ebase Xi is designed to simplify and accelerate the development and deployment of business applications. Our goal is to maximize the benefits of information technology whilst minimizing its complexity and total cost of ownership.

THE BENEFITS

Faster to market

- Agile development methods quickly define and deliver against business requirements
- Shorten project lifecycles with visual design, automation and simplification of technical complexity

Reduce costs

- Easy to learn, intuitive, single technology platform reduces training costs and shortens learning curves
- High productivity means shorter projects needing less people
- Optimize IT investment by centralizing and standardizing integration services

Reuse assets

- Incorporate existing systems into new business processes
- Extend legacy system life via standards-based APIs

Improve process visibility

- Automate, track and control business processes via escalation, dynamic routing and flexible resource assignment

Deliver ROI by meeting business objectives quickly, flexibly and cost-effectively.

EBASE XI

Ebase Xi simplifies and accelerates the delivery of SOA business applications.

Ebase Xi is about productivity. Every aspect of the platform is designed to simplify and accelerate the delivery of business applications.

THE EBASE Xi PLATFORM

The **Ebase Xi** platform combines application development, business process management and integration into a single-technology platform that delivers unprecedented productivity for the development of business applications.

The platform comprises:

- **Xi Workflow**
- **Xi Integration Server**
- **Xi Agile Development Platform (ADP)**

The Xi platform components are closely integrated and use a common, productivity-focused technology set to develop and deliver new applications. Xi embeds a powerful and extensible high-level business language that controls all application processing, whether it's deciding what fields should appear on a user's screen, determining which path should be taken at the decision point in an automated business process, or integrating application data with an external system.

Xi applications use a common integration engine that simplifies technical complexity by representing external data sources as generic Resources. Each different type of Resource embeds the intelligence needed to exchange data with the external system that it represents. To integrate application data with an external system developers need only map appropriate Resource fields to their own application fields, and then call the Resource using simple Xi business language commands.

Xi is shipped with a wide range of data integration Resources:

- **Web Services**
- **JMS**
- **XML transport via HTTP, flat files, Stored Procedures and other protocols**
- **Databases, including stored procedure and function calls (JDBC)**
- **Email**
- **CSV and other file formats**
- **PDF (for printing)**

Xi integration capabilities are easily extended to include non-standard systems and interfaces by creating custom Resources (developed in Java) .

Xi integration technology is key to the extreme productivity offered by the platform; because there is no need for time consuming low-level programming or detailed knowledge of data exchange protocols, developers are free to focus on delivering business functionality rather than worry about technical details.

Data integration is handled the same way throughout the Xi platform and is key to the productivity that it offers.

Developers are free to focus on delivering business functionality rather than technical details.



Xi WORKFLOW

The **Xi Workflow** system delivers business processes as fully automated, integrated and highly visible workflow processes. Xi Workflow offers a range of powerful and high-productivity design features:

Process Design

- Powerful **Visual Process Designer** to design and visualize automated workflows.
- Embedded **Test Harness** to enable 100% scenario testing.
- **Human Interactive Tasks**, with built-in integration to Ebase user applications to enable task completion.
- **System Tasks**, for programmatic task fulfillment process tasks that can be completed without human intervention.
- **Manual Tasks** handle task fulfillment when only a manual step, such as making a phone call, is needed.
- A powerful and easy to use **business language** enables running processes to dynamically control process routing and to exchange data with external systems.
- Sophisticated process design with **escalation** for overdue tasks, reusable **sub-processes**, and splits and joins for **parallel routing**.
- **Custom Resource Assignment** allows external applications to determine who the next step in a running process should be assigned to. This powerful Xi feature allows business processes to dynamically refer to core back-office applications for real-time decisions about task allocation.

Data Integration

- Built-in **Data Integration** enables the communication of process data via Web Services and other XML transport methods, via JMS, with databases, to flat files, by email and FTP, as text messages or to any external API.
- Xi integration is also extensible, allowing developers to write new adaptors for custom integration.

Enterprise Support

- Built-in support for external **authorization, authentication, and dynamic resource assignment** (the allocation of process tasks to people, or groups of people), including LDAP and other security directories.

Process Management

Xi is delivered with customizable and ready-to-use:

- Task Lists for group working, team leaders and system administrators.
- An Administration Console for tracking, monitoring and managing running processes.

Close integration with the Xi Agile Development Platform enables Human Interactive Task design to be delivered as intelligent, interactive and accessible user interfaces. The Xi Workflow system also presents an API that allows external applications to participate in running business processes, and enables the development of custom Administration Consoles and Task List applications.

By masking technical complexity Xi delivers unprecedented power and productivity.

Guarantee process control and completion by automatically escalating overdue tasks.

Effortlessly integrate data into the back-office via automated interactive and system tasks.

Working directly with external security and HR systems enables Xi business processes to plug seamlessly into the enterprise environment.



Xi INTEGRATION SERVER

The **Xi Integration Server** is both a high-productivity platform for developing industry-standard Web Services and a scalable run-time service which presents deployed Web Services as a centralised integration hub.

Web Services are developed using the Xi business language and the data integration Resource technology used throughout the Xi platform. Xi Web Services comply with the WS-I Basic Profile and are published in document literal format to ensure accessibility to the widest range of external applications.

Xi AGILE DEVELOPMENT PLATFORM (ADP)

The **Xi ADP** is an integrated development environment that enables transactional browser-based applications to be developed, tested and deployed to the Xi service oriented architecture. The ADP is packed with productivity features that guarantee the rapid delivery of intelligent, interactive and accessible user applications:

Application Design

- WYSIWYG screen design
- Component-based development
- Event-based business language delivering a simple, intuitive command set to provide full run-time control of presentation management, business rules execution, and data integration
- Automatic WAI AAA accessibility compliance
- Automatic internationalization, language recognition and rendering, and number and date formatting

Security

- Built-in run-time authentication and authorization models
- Automatic integration with LDAP and other security directories

Printing

- Powerful PDF print designer with data merge from online applications
- Integrated support for Velocity templates
- Printing to external PDF documents

Data Integration

- Full implementation of Xi data integration Resource technology provides unlimited data connectivity with external systems
- Custom Resources for non-standard integration
- Extensible business language for calls to external programming languages

Tight Coupling with Xi Business Processes

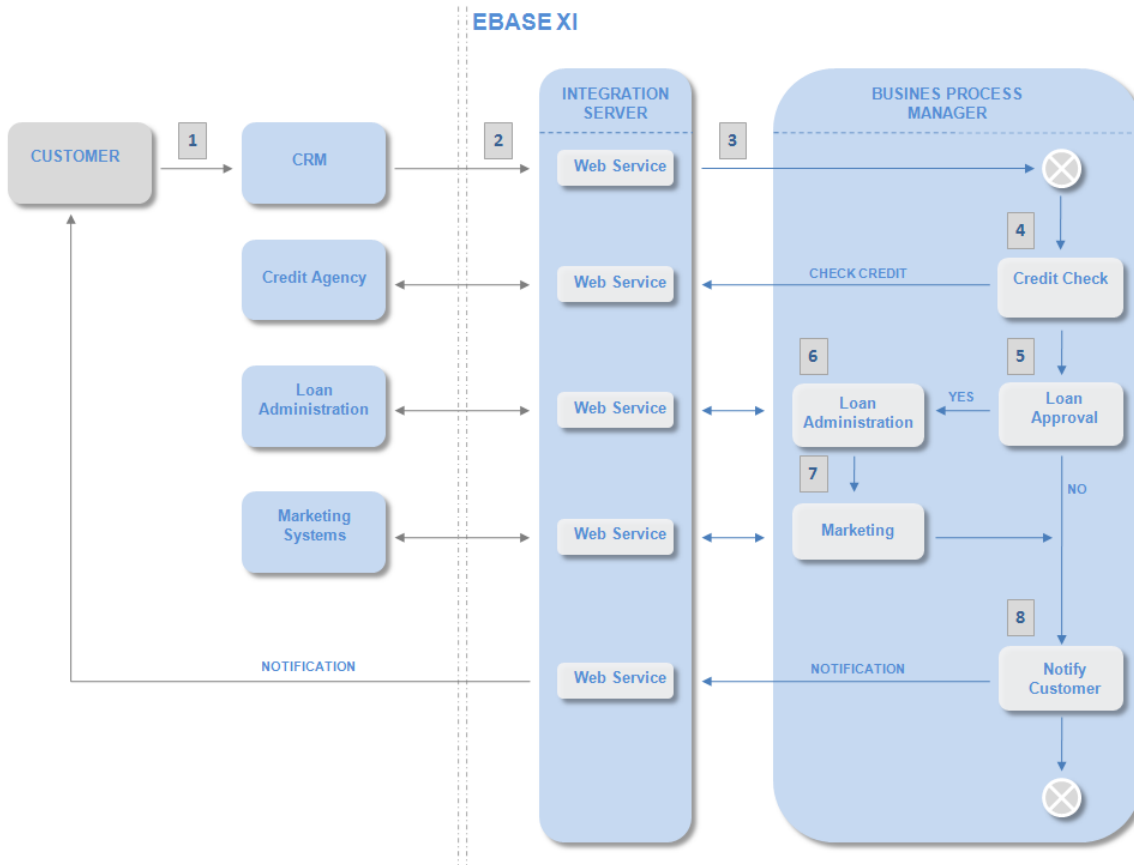
- Effortless mapping of ADP applications to Xlibusiness processes ensures the rapid delivery of the sophisticated user interfaces needed to complete human interactive process steps

High speed development and deployment of industry-standard Web Services.

The ADP effortlessly delivers the user interfaces needed to complete the human interactive steps in running business processes.

ADP business logic and data integration employs exactly the same technology in use throughout the Xi platform.





Xi supports hybrid business processes that combine human interactive tasks with back-office data integration. The platform delivers its extreme productivity by simplifying technical complexity and allowing projects to concentrate on delivery business functionality.

SCENARIO: LOAN APPLICATION

To understand how Ebase Xi works let's look at a the example of a simplified bank loan application. The process can be tracked by following the numbered steps 1 to 8:

1. A customer completes the loan application form on the bank's website
2. The application is received by the CRM, which records the data; and
3. Calls a Web Service on the Ebase Xi Integration Server, which starts an internal business process to administer the loan request;
4. The first step of the process is an automatic credit check performed by calling an external Credit Agency, via an Xi Web Service, and passing in the applicant's details and the amount to be borrowed. The Web Service returns the result of the credit check to the running process.
5. The second process step is a Human Interactive Task, and requires a member of staff to look at the loan request and the results of the credit check, and decide whether the loan should be approved.
6. If the loan is approved then it passes to the Loan Administration step. The loan details are automatically processed into the Loan Administration system, again using a Web Service to deliver the data.
7. Following the Loan Administration step the process writes the application details to a marketing database so that the applicant may be later targeted with the banks products and services. Again, the communication is via an industry standard Web Service, presented by the Xi Integration Server.



Xi delivers agile SOA by abstracting complex business logic and application integration into reusable web services that replace hand coding with a component assembly model.



8. The final step automatically notifies the applicant whether their application has been successful. The Notify Customer process step calls a Web Service passing in the outcome of the application, which the Web Service then formats as an email and sends it to the applicant.

The example shows how Xi components use a flexible service oriented architecture to implement a real-world business requirement :

- The **Business Process Manager** dynamically controls the process flow, automatically assigning tasks to people and integrating data with external systems.
- The **Integration Server** provides a central integration hub, enabling process data to be exchanged between different systems across a standard Web Service interface.
- The **Xi ADP** provides the intelligent and interactive user screens that enable people to action the Human Interactive Tasks assigned to them by the Business Process Manager.

Xi in Action

The Xi platform is used by a wide range of government and private sector organisations to shorten the delivery times of business-critical software applications. Successful deployments are diverse, including commercial software product development, delivery of an enterprise-scale data integration architectures, electronic forms, and the management of sophisticated business processes.

Xi delivers unparalleled productivity for the delivery of SOA business applications, and delivers return on investment to any organisation where time to market is mission critical.

PROCUREMENT

Xi procurement options:

- The Xi platform may be procured as a development platform directly from Ebase Technology or from a range of Ebase Channel Partners
- Ebase also offers a Channel Partner program for software development companies, System Integrators and Value Added Resellers
- Ebase Xi is licensed via a flexible value-based pricing model

TRAINING

The Ebase Xi training curriculum:

- Ebase Xi ADP Fundamentals
- Ebase Xi Workflow
- Ebase Xi Integration Server
- Ebase Xi Administration
- Extending Ebase Xi

Training is delivered both onsite at customer premises and via a schedule of public training courses.

Custom and project specific training courses may also be provided upon request.

SUPPORT & DEVELOPMENT

- Help-desk and optional 24*7 support service
- Customer Portal
- Community development forum
- Web-based Resource Centre
- Professional project management and consultancy services
- Channel Partner support program

MORE INFORMATION

For more information please visit our website www.ebasetech.com

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